Draft Agenda – PFAS R&D Discussions
EPA's National Risk Management Research Laboratory (NRMRL)
26 West Martin Luther King Dr.
Cincinnati, OH

Nov. 9, 2018

Commented [A1]: Version 2, reflecting comments from Marc Mills and Tom Speth

Objective: Different industry entities have many years of experience in working with PFAS and have developed significant sets of expertise which might inform or address current EPA R&D needs. We want to look for opportunities for EPA to leverage expertise, experience and capabilities from the private sector relating to PFAS, in particular (1) PFAS analytical measurement methods, (2) PFAS treatment and removal approaches, and (3) PFAS toxicity assessment. The meeting in Cincinnati will focus on the first two areas.

Sideboards: Everything discussed at this meeting needs to be considered 'public' information, available to be shared at any time, without additional permission, with others outside the specific meeting participants.

As such,

- EPA participants should not discuss anything that is draft or deliberative and not ready for sharing more broadly. Discussion of research plans, challenges, questions and approaches is fine; sharing preliminary data or results which have not been peer reviewed or published would be premature.
- Industry participants should not share any proprietary information, confidential business information, trade secrets, or anything else that they would not want shared more broadly.

Meeting Notes in Bold

Participants:
EPA: Andy Gillespie, Marc Mills, Tom Speth, Chris Impellitteri (Day 1), Greg Carroll (Day 1), Steve Wendelken (Day 1)

RSPC: Jonathan Gledhill (Day 2), Jim Rollins (Day 2), Scott Keesling, Brian Mader, John Matthis, James Kotsmith, Bob Wright (Day 2)

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THURSDAY NOV 15 – FOCUS ON ANALYTICAL METHODS FOR PFAS

1:00 Welcome, introductions - Andy Gillespie, Jonathan Gledhill (Responsible Science Policy Coalition)
- Name, organization, interest and role in PFAS methods

1:15 Overview of EPA ongoing work on PFAS Methods – Andy Gillespie, Chris Impellitteri
- Overview of EPA R&D, where methods fit in
- Specific lines of work underway – methods for water, solids, air, nontargeted
- Needs – precursors, total organic,
- Discussion

2:00 Overviews by industry
- Work that you have ongoing, available, expertise or capabilities that might be leveraged
- Overviews by industry of what they have, what they are working on in the in the methods arena – lessons learned (including things that don't work)

4:00 Effective collaborations - discussion
- What are the opportunities – what areas, topics, priorities, capabilities, etc.
- How do we do it the right way, in alignment with our respective corporate obligations for sharing information
- Next steps, action items

5:00 Adjourn

Possible gaps in current EPA program where collaboration might help:

- **EPA should consider developing SW-846 analytical method that uses isotope dilution without SPE.**
- **Provide acceptance requirements for recovery of isotopically labeled standards for isotope dilution methods**

Opportunities for effective collaborations:

- **3M would consider serving as one of the participating labs for multi-laboratory validation step of the SW-846 methods**
- **3M has experience with air emission sampling and analysis, and are open to more detailed discussion with EPA staff working on emission sampling and analysis methods**
- **3M also has experience with ecotoxicology studies and Total Organic Precursors (TOP) and Total Organic Fluoride (TOF) methods – could share experience when EPA is ready to move in those directions**
- **EPA would benefit from some non-confidential mechanism to help speed up identification of new PFAS substances discovered through High Resolution Mass Spectrometry methods – some kind of clearinghouse to speed identification without compromising confidential business information.**
- **Professional meetings (e.g. SETAC meetings, industry-Federal workgroups) could serve as one mechanism to advance collaboration, share information. Both EPA and RSPC are sponsors of upcoming special SETAC Focus Topic Meeting on PFAS.**

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FRIDAY NOV 16 – FOCUS ON PFAS TREATMENT AND REMEDIATION

8:00 Welcome, introductions - Andy Gillespie, Jonathan Gledhill (Responsible Science Policy Coalition)
- Name, organization, interest and role in PFAS treatment and remediation

8:15 Overview of EPA ongoing work on PFAS Treatment and Remediation – Andy Gillespie, Tom Speth, Marc Mills
- Overview of EPA R&D, where treatment and remediation fits in
- Specific lines of work underway – drinking water treatment effectiveness, costs; contaminated site remediation methods; ongoing cooperation with DOD, others
- Needs – data on effectiveness, cost for different treatment techniques for different PFAS in drinking water, groundwater, wastewater, contaminated soils and sediments, biosolids, landfill leachate
- Discussion

9:15 Overviews by industry
- Work that you have ongoing, available, expertise or capabilities that might be leveraged
- Overviews by industry of what they have, what they are working on in the treatment and remediation arena – lessons learned (including things that don't work)

11:15 Effective collaborations - discussion
- What are the opportunities – what areas, topics, priorities, capabilities, etc
- How do we do it the right way, in alignment with our respective corporate obligations for sharing information
- Next steps, action items

12:00 Adjourn

Possible gaps in current EPA program where collaboration might help:

- **RSPC anticipates growing interest, need in information regarding material management – landfills, land applied biosolids in particular. EPA has small investment at present, opportunity exists to grow this research area through collaboration and levering research at the ORD, DoD, and industry.**

Opportunities for effective collaborations:

- **3M has treatment data at the bench-, pilot-, and full-scale for both novel and mature technologies that would augment research done at EPA. There is an opportunity to share data and coordinate on publications.**

- **RSPC members may have relevant water treatment and remediation data to share, could be added to Drinking Water Treatability Database (DWTDB), and EPA could resurrect a data base for remediation data, and make it on-line, like the current DWTDB). Include attributes such as PFAS names/CASRN, treatment specifics, breakthrough profiles, percent removals, operating specifics and costs.**